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On the Reauthorization of the Magnuson-Stevens Fishery Conservation and Management Act

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Good morning Madame Chairman and Members of the Subcommittee, my name is Marjorie Mooney-Seus. I am the manager of the New England Aquarium Conservation Department, a non-profit organization with over 1.3 million visitors each year. Our organization is dedicated to promote, protect and restore the aquatic environment through education, conservation and research.

The New England Aquarium like more than 80 other organizations across the country is a member of the Marine Fish Conservation Network because we support the basic premise of the Network, that it represents a diverse group of stakeholders working to conserve and promote the long-term sustainability of marine fish.

I personally have worked closely with the fishing industry, government agencies, members of the academic research community and environmental organizations over the past several years on regional and international fisheries issues. I appreciate this opportunity to speak before you on the reauthorization of the Magnuson-Stevens Act.

In my testimony, I will focus on what has been accomplished with the passage of the Sustainable Fisheries Act (SFA) in 1996 and what more needs to be done to strengthen future fisheries management in the following areas: Essential Fish Habitat designations; bycatch reduction; collaborative research and adoption of ecosystem-based principles for research and management; expanded observer coverage; and increased coordination among multiple jurisdictions (particularly between the United States and Canada). The majority of my comments will be made within the regional context.

Given the significant time constraints under the law for implementation of SFA, limited resources, both human and financial and an already taxed agenda, National Marine Fisheries Service and the Fishery Management Councils were still able to achieve some measurable progress.

The groundwork was laid for promoting a broader ecosystem-based approach to produce a healthy abundance and diversity of marine species for human and other uses. However, because this represents a fundamental shift in fisheries management, the Act's full impact has yet to be realized. It rather should be viewed as a work in progress. Thereby, the emphasis should be on fine tuning the Act rather than rewriting significant components of it.

In particular, SFA mandates for identifying and protecting Essential Fish Habitat and addressing bycatch were positive steps toward an ecosystem approach to fisheries management. And, these are areas where some definitive actions were taken over the past several years.

Essential Fish Habitat Designations

Approximately 75 percent of federally managed fish species spend some portion of their lives in estuaries and rivers. Inshore waters provide important areas for fish breeding, feeding and growth. However, these areas are subject to all manner of degradation from urban, residential and industrial runoff to the loss of wetlands and submerged vegetation. The Essential Fish Habitat (EFH) mandate represents the first truly comprehensive attempt to protect habitat from these and other sources of degradation as well as from the impact of various fishing gear.

There has been some criticism over the broad scope of EFH designations. Having served as a technical advisor to the New England Fishery Management Council's Habitat Committee for the past two and half years and seeing first hand the level of available scientific data and information, I believe that such broad designations, at least initially, are prudent. There remains much scientific uncertainty over exactly how much habitat is necessary to support healthy fish populations. Until such time as additional information and data can be collected from existing and new sources such broad designations are warranted. Again, it is important to view this mandate as a first step in a multi-staged process. Through additional collaborative research and a further consolidation of existing data and information from various federal, state and other sources, these designations can be refined and their value enhanced.

Another strength of the EFH mandate lies in its "Consultation Process." Having spent the better part of the past six years working to bring together fishermen, scientists, fishery managers and environmentalists to identify common ground on fisheries related management and science issues, I recognize the value of ongoing and open communication.

The requirement under Section 305 (b) (2) is that a Federal agency "shall consult with the Secretary with respect to any action authorized, funded or undertaken, or proposed to be authorized, funded or undertaken by such agency that may adversely affect any essential fish habitat identified under this Act."

This provides a formal channel for more open agency dialogue and a foundation to address cross-sectoral effects on water resources. In order to manage fish species, which don't respect human societal boundaries, it is imperative that we consider the broader picture beyond just regulating fishing activities. There really isn't any other mechanism in place to evaluate the impact of various projects on fish habitat. Existing environmental review procedures available through the Clean Water Act and the National Environmental Policy Act (NEPA) examine the impact of proposed projects on the environment generally and on the human environment, respectively.

What is needed in order to move forward is a clear mandate for the National Marine Fisheries Service and the Councils to continue to refine habitat designations with a high priority placed on the development of Areas of Particular Concern. Further refinement of EFH designations and development of habitat protection measures also require investment in collaborative research and mapping, shared information and a common vision, and a long-term monitoring program.

In addition, it is imperative that the integrity of Section 305 (b) (2) of the Magnuson-Stevens Act be maintained, if not strengthened, to promote increased communication among federal agencies over activities that may impact fish habitat.

Fisheries Bycatch and Discards

While results have not been as significant in the area of bycatch reduction as they were in identifying EFH, there have been some modest accomplishments since the passage of SFA.

Bycatch, particularly in multi-species fisheries as we have in the northeast, for years was regarded as a normal course of doing business. In some cases, fishermen following a natural desire to maximize the value of their catch, discard less valuable fish. In other cases, the discards are regulatory. Bycatch discards are simply an economic and ecological externality. However, with dwindling commercial fish stocks and concern over endangered species, the need to curtail bycatch and discards has significantly increased. Bycatch and discards not only affect vulnerable species such as seabirds and marine mammals, but also other commercial fisheries for which the bycatch is their primary target.

National Standard 9 states that “Conservation and management measures shall, to the extent practicable, (A) minimize bycatch and (B) to the extent bycatch cannot be avoided, minimize the mortality of such bycatch.”

In New England while there is clearly a need for more comprehensive evaluation and minimization of the region’s bycatch, some positive steps have been taken to reduce bycatch and/or minimize bycatch mortality. The region already mandates the use of a bycatch reduction device in its northern shrimp fishery and has measures to keep groundfish bycatch in other fisheries under five percent. Most recently, with the reopening of a section of one of the groundfish closed areas for scallop fishing, strict bycatch quotas were put in place for yellowtail flounder and monitored with the help of a vessel monitoring system (VMS). Once the yellowtail bycatch quota was reached, the scallop fishery in this area was effectively shut down.

Further progress can be made in addressing bycatch by enlisting more support from fishermen. The fishing industry has proven time and time again that it can be innovative when it comes to finding technological solutions or alternative fishing methods to deal with bycatch. In the North Pacific longline fishermen took the initiative to reduce seabird mortality prior to the implementation of bycatch management measures. Similarly, fishermen led the charge to address problems of dolphin mortality in Eastern Tropical Pacific tuna fisheries and to reduce harbor porpoise entanglement in gillnets and shrimp fishery bycatch in the North Atlantic.

Towards this end, there needs to be a stronger legislative mandate to more actively engage fishermen in research and research project design -- drawing on the fisherman’s expertise and daily knowledge of aquatic resources and species co-occurrence in the marine ecosystem -- to find further efforts to minimize bycatch and associated discards.

While existing regulatory measures provide some incentive for fishermen to address bycatch, they also serve to stymie ingenuity within the fishing industry to more effectively curtail this needless waste.

To help overcome this impediment, additional language needs to be added to Section 303 (a), Required Provisions for Fishery Management Plans that encourages the adoption of conservation and management measures which provide catch incentives for fishermen to engage in fishing practices that avoid bycatch or result in lower levels of mortality of bycatch that cannot be avoided.

Congress also needs to ensure that there are adequate appropriations to support improved data collection and observer coverage if we are to determine the amount, type and disposition of bycatch and bycatch mortality in various fisheries, as well as support innovations in gear technology.

Collaborative Research and Strategic Planning within the Ecosystem Context

There are obvious advantages to increasing stakeholder involvement in data collection efforts. Both available resources and the scope of existing survey programs can be expanded. For example, while the fish component of marine ecosystems is monitored routinely for many stocks and in most regions – through programs like the standardized trawl surveys that have been implemented off of the northeast coast of the United States since 1963 – some fish stocks are virtually unsampled by the current survey program. The trawl survey is further limited in its scope because it does not effectively capture inshore waters. In other regions, fish stocks are only surveyed every third year.

Section 2 (a) (8) of the Magnuson-Stevens Act which states, “the collection of reliable data is essential to the effective conservation, management, and scientific understanding of the fishery resources of the United States,” should be modified to recognize the value of partnering with various organizations such as the fishing industry, academic community, state agencies and other organizations to collect scientific data and information.

Another suggested change to the Act would address the need for including stakeholders in the research strategic planning process. The rationale for this being that this would increase stakeholder commitment to more long-term monitoring programs. Long-term monitoring programs are essential to the success of fisheries management, particularly if we are to discern the effects of fishery policies from those due to other factors.

Section 404 (b) of the Magnuson-Stevens Act requires that the Secretary “shall develop...a strategic plan for fisheries research... indicate goals and timetables...provide a role for commercial fishermen in such research...and provide for collection and dissemination in a timely manner...and provide for coordination with affected States and other research entities.”

Section 404(b) should be modified to specify that both industry and other stakeholders be involved in the development of strategic plans for collaborative research. If stakeholders are more fully vested in the development of the research strategic plan and actively involved in the execution of this plan, they are more likely to support its results.

The New England Fishery Management Council through its Research Steering Committee (RSC) has taken the first big step in helping to satisfy this mandate at the regional level by developing a broad list of priorities for cooperative research. What is needed now is for Congress to provide guidance to fishery management councils so that when they engage in designing collaborative research programs, addressing ecosystem questions are given a high priority. There also must be a long-term commitment to funding of collaborative research and investment in new institutions for collaborative data gathering such as the Canadian Sentinel Fisheries model, whereby fishermen are regularly engaged in fishery dependent surveys and the data is then integrated into annual stock assessments. There also must be long-term investment to ensure universal application of enabling technologies such as VMS and upgrading of the VMS data management capability regionally. Ultimately, this would lead to a more comprehensive research program with established ecological and governance underpinnings for ecosystem-based management.

At the end of Section 305 language should be added calling for the development of Fisheries Ecosystem Plans. Included in the plans should be information on the structure and function of ecosystems, including the geographic extent of the ecosystem and its biological, physical and chemical dynamics; a description of the significant food web including key predator-prey relationships and the habitat needs of different life stages of species that make up the significant food web, indices of ecosystem health and integrity; and an outline for a long-term monitoring program to evaluate fishery-dependent and fishery independent changes in the ecosystem.

Complimentary management directives also are needed within the Act. Specifically, language should be added to Section 2 (b) emphasizing the importance of considering the precautionary approach in management decisions when the effects of fishing are unknown in order to maintain ecosystem health and sustainability. Also, in Section 2 (c) (3) new language should emphasize the need for incorporating and applying ecosystem principles and considering how fishing affects predator-prey relationships within marine ecosystems, trophic structure, age class structure within stocks, and biological functions such as spawning.

As early as 1871, the value of understanding ecosystem dynamics was recognized, when the first appointed Commissioner of the U.S. Commission of Fish and Fisheries, Spencer Baird stated, “our understanding of fish...would not be complete without a thorough knowledge of their associates in the sea, especially of such as prey upon them or constitute their food.” As we move into the new millennium and we struggle with how better to manage overtaxed fish stocks, it is time we took heed of these words.

Federal Observer Program

To complement collaborative research programs, a national observer program also should be established to monitor and collect statistically significant and reliable data about bycatch and discards, landings, impacts on essential fish habitat, and other relevant ecosystem information. Specifically, language should be added to Section 2 (a) (6) of the Magnuson-Stevens Act calling for establishment of such a program.

Multilateral coordination

In considering the reauthorization of the Magnuson-Stevens Act the means for promoting greater coordination of legislative and institutional responsibilities across jurisdictions should be encouraged. We need an “institutional” and a “legislative” ecology which more closely parallel the natural ecology to more effectively manage fish resources.

Therefore, it is important that there be complementary approaches in data collection, stock assessment and management of fish both at the state and federal level and at the international level. In the northeast, there should be increased coordination between the United States and Canada. The NMFS and New England Fishery Management Council have already taken some positive steps to informally develop a management frame of reference between the United States and Canada for three principal groundfish stocks, cod, yellowtail flounder and haddock. Such action should be commended and further encouraged by Congress for more effectively studying and managing transboundary and highly migratory fish stocks.

At the New England Aquarium we have long recognized the value of such cross-sectoral collaborations, having conducted a number of workshops to promote information exchange among various jurisdictions. Currently, we are undertaking a collaborative research project with the lobster fishing industry and various government agencies in three states to apply a model developed by the Canadians for gathering stock assessment information. The hope is that this will enable us to take some serious steps towards better understanding the North American lobster's distribution in the Gulf of Maine.

In closing, I believe that the reauthorization of the Magnuson-Stevens Fishery Conservation and Management Act provides real opportunity for greater stakeholder involvement in strategic planning and collaborative research. This will contribute to a fuller understanding of the marine ecosystem, providing a foundation for ecosystem-based management and the long-term sustainability and health of marine resources.